

**THE FOLLOWING ARE THE ENGLISH TRANSLATION
OF ANNEXES TO THE INTERNATIONAL PRELIMINARY
EXAMINATION REPORT (ARTICLE 34):**

Amended Sheets (Pages 24-25/3)

What is claimed is:

1. A plasma processing apparatus for performing a process on a substrate (11) by exposing the substrate to a plasma generation region (22), the apparatus comprising:

a chamber (1) for accommodating therein the substrate (11);

a top plate unit (4) serving as a part of partition walls of the chamber (1); and

an antenna unit (3) for supplying a high frequency electromagnetic field into the chamber (1) to form the plasma generation region (22) in a region between the top plate unit (4) and the substrate (11) accommodated in the chamber (1),

wherein the top plate unit (4) includes:

a flat plate portion (4a) disposed to face the substrate (11) and being in contact with the antenna unit (3); and

a side wall portion (4b) formed to extend from a peripheral region of the flat plate portion (4a) towards a side where the substrate (11) is disposed.

2. The plasma processing apparatus of claim 1, wherein the side wall portion (4b) has a thickness of $\lambda_g/4$ or greater, λ_g being a wavelength of a high frequency electromagnetic field based on a dielectric constant of the

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top plate unit (4).

3. The plasma processing apparatus of claim 2, wherein the side wall portion (4b) has a thickness smaller than λ_g .

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4. The plasma processing apparatus of claim 1, wherein sides of the flat plate portion (4a) and the side wall portion (4b) facing the plasma generation region (22) have a smooth and curved surface extending between the flat plate portion (4a) and the side wall portion (4b).

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5. The plasma processing apparatus of claim 1, comprising a gas injection opening (13) for supplying a gas into the chamber (1), wherein the gas injection opening (13) is disposed to inject the gas along the side wall portion (4b).

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6. The plasma processing apparatus of claim 1, wherein the chamber (1) includes a conductive portion (1) being in contact with an outer periphery of the side wall portion (4b).

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